

REMARKS/ARGUMENTS

Favorable consideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-16 are pending in this application. Claims 1-3, 7, 8, 13, and 14 have been amended to incorporate the subject matter previously presented in canceled Claims 4 and 9, and Claims 1-5 have been further amended and new Claims 15 and 16 have been added to better clarify the invention without introducing any new matter. For example, Claims 15 and 16 present rephrased subject matter removed from Claims 6 and 12 based on the second paragraph of 35 U.S.C. § 112 rejection of these claims discussed below.

The outstanding Action presents a rejection of Claims 6 and 12 under the second paragraph of 35 U.S.C. § 112, a rejection of Claims 1-4, 6-9, and 11-14 under 35 U.S.C. §102(e) as anticipated by Krasner et al. (U.S. Patent No. 6,665,541, Krasner), and a rejection of Claims 5 and 10 under 35 U.S.C. §103(a) as being unpatentable over Krasner in view of McCrady et al. (U.S. Published Patent Application No. 2001/0053699, now U.S. Patent No. 6,801, 782, McCrady).

The outstanding rejection of Claims 6 and 12 under the second paragraph of 35 U.S.C. § 112 is respectfully submitted to be overcome by the present amendment to those claims that removes the objected to language “and/or” there from. The language following this deleted language of “and/or” of these claims has further been respectively incorporated into new claims 15 and 16.

Before considering the outstanding art based rejections, it is believed that a brief review of the present invention would be helpful. In this regard, Claim 1, for example, is concerned with a wireless communication system having wireless units that perform data information transmission during a predetermined data communication period portion of a predetermined transmission frame period and perform a distance measurement between

particular wireless units during a ranging period portion of said predetermined transmission frame period separate from the data communication period portion. In this regard, a first wireless unit transmits a ranging signal to a second wireless unit and the second wireless unit receives the ranging signal and responds thereto by transmitting a response signal to the first wireless unit after a lapse of a predetermined delay period after the second wireless unit receives the ranging signal. The first wireless unit receives the response signal from the second wireless unit and measures a distance between said first wireless unit and said second wireless unit according to an elapsed time measured from when the first wireless unit transmits the ranging signal until the first wireless unit receives the response signal from the second wireless unit.

Turning to the rejection of Claims 1-4, 6-9, and 11-14 under 35 U.S.C. §102(e) as anticipated by Krasner, it is noted first that the cancellation of these claims renders their rejection moot.

The rejection of Claims 1-3, 6-8, and 11-14 under 35 U.S.C. §102(e) as anticipated by Krasner, is traversed because in order to establish anticipation under 35 U.S.C. § 102, the U.S.PTO must cite a single prior art reference that discloses each and every element arranged together exactly as in the claimed arrangement. *See In re Bond*, 15 USPQ2d 1566 (Fed. Cir. 1990); *Lindemann Maschinen Fabrik GMBH v. American Hoist & Derrick Co.*, 221 USPQ 481 (Fed. Cir. 1984); *Ex parte Gould*, 6 USPQ2d 1680 (BPAI 1987); and *Ex parte Osmond*, 191 USPQ 334 (BPAI 1973). Thus, and as fully explained by the Board in *Osmond*, at 191 USPQ 336, for example, isolated disclosures having no teaching in the reference containing them that there is any interrelationship there between or reason to combine such isolated teachings into a single combination cannot be said to anticipate a claimed invention simply because these unconnected features all appear in one reference.

Accordingly, although step 153 of Krasner involves determining a propagation delay between a mobile unit and a base unit, this is not taught to be of any particular use in the

method defined by operation 201 and/or operation 207 that rely on GPS time, and not a time determined by a transmitted time and the above-noted propagation delay as in step 155 that is taught to follow step 153. There must always be something in the reference directing the person skilled in the pertinent art to make the selections necessary from all the isolated disclosures of the reference to formulate a combination having the specific combination of features claimed and that kind of disclosure does not exist in Krasner as to somehow integrating the steps 153 and steps 201 and 207 also relied on in the rejection.

Moreover, to whatever extent that step 201 includes sending a signal from a base station to a mobile station, there is no hint in Krasner of a data communication period portion of a predetermined transmission frame period being separate from a ranging period portion thereof as all the claims require. In fact, the step 201 includes a “cellular signal” that has time tags included as part of the signal being sent to the mobile station and is used to time synchronize the base station. See col. 7 lines 40-61 of Krasner as follows:

The cellular basestation provides time tags or markers in its signal which is being transmitted to the mobile system. This marker may be a marker that is an inherent part of the framing structure of the signal. This is further shown in FIG. 6A in which basestation 1 transmits a signal with a framing structure which includes markers M1, M2, M3, M4, M5, M6, M7, M8 and M9 as shown in the signal 301 of FIG. 6A. The mobile system in operation 203 of FIG. 5A receives the cellular signal with the markers. Contemporaneously with the receipt of this cellular signal, the mobile station also receives a GPS signal from a GPS satellite which includes GPS time, as is well known in the art. The mobile station may then time tag the marker in the cellular signal received from the basestation with GPS time, which represents, in GPS time, a time when the marker was received at the mobile system. This is further shown in FIG. 6A by the signal 303 which represents the signal received by the mobile 1 from base 1 as delayed by the propagation delay 307. As shown in FIG. 6A, a time tag 305 has been applied to the marker M1 and this represents the GPS time associated with the time of receipt of this marker at the mobile system.

Moreover, to whatever extent that step 207 includes the mobile station sending the base station its position, this is done after step 205 described at col. 7, line 61- col. 8, line 3, and has nothing to do with the claimed operation of receiving a ranging signal and

responding to this ranging signal.

Also, to whatever extent that Krasner teaches that operation 207 involves sending a position indication for the mobile station to the base station, this is used to compute time of day at the base station as explained relative to operation 209 discussed at col. 8, lines 8-31 as follows:

In operation 209, the cellular basestation computes its time-of-day by using the position of the mobile and its known predetermined position to determine the propagation delay between the mobile and the basestation. This propagation delay is subtracted from the GPS time associated with the marker to determine GPS time at its transmitted marker. This is shown in FIG. 6B in which the basestation 1 receives the time tag TR1 from the mobile system. This time tag TR1 represents a GPS time which is associated with the marker M1. The propagation delay 307 is subtracted from the GPS time TR1 to derive the time T1 which is associated with the marker M1. That is, the time T1 is a time tag 309 associated with the marker M1 at the basestation. The current time at the basestation may then be updated by associating the GPS time in the tag 309 with the current frame M9 to produce current time 311 as shown in FIG. 6B. That is, there is a known time relationship given the framing structure of the signal 301 between the marker M9 and the marker M1 in the signal 301. The difference in time between these two markers given the known framing structure is added to the time T1 to produce the current time 311. Thus, current time at the cellular basestation is updated from the GPS time which was associated with a transmitted marker which has been time tagged by the mobile. This is shown as operation 211 in FIG. 5B.

Thus, the transmission of the mobile station position in step 207 has absolutely nothing to do with the claimed subject matter that requires a distance measurement between the wireless units according to “an elapsed time measured from when said first wireless unit transmits the ranging signal until the first wireless unit receives the response signal from the second wireless unit,” as specified by Claim 1, for example.

Accordingly, as the features specified by Claim 1 are not all taught by Krasner, this rejection of Claim 1 as being anticipated by Krasner is traversed and withdrawal thereof is respectfully requested.

Also, as independent Claims 2, 3, 7, 8, 13, and 14 all include subject matter similar to that specified by above-noted independent Claim 1 and further all require that the distance

between wireless units must be measured based on the elapsed time from when the ranging signal is transmitted to when the response signal is received, this rejection of independent Claims 2, 3, 7, 8, 13, and 14 as being anticipated by Krasner is traversed for the reasons noted above as to independent Claim 1 and withdrawal thereof is further respectfully requested.

The rejection of dependent Claims 6, 11, and 12 as being anticipated by Krasner is traversed for the reasons noted above as to the independent claims because these dependent claims include at least all the features incorporated therein due to their dependency. Also, 1 and withdrawal thereof is further respectfully requested. The rejection of these dependent claims as being anticipated by Krasner is further traversed because of the features added by each of these dependent claims that are also not taught by Krasner.

Turning to the rejection of Claims 5 and 10 under 35 U.S.C. §103(a) as being unpatentable over Krasner in view of McCrady, it is first noted that McCrady does not cure the deficiencies in Krasner that are noted above. Accordingly, as these dependent claims include all the features of their respective independent claims that are not taught or suggested by these applied references considered alone or together in any proper combination, withdrawal of this rejection of Claims 5 and 10 is further respectfully requested.

The rejection of these dependent claims as being unpatentable over Krasner in view of McCrady is further traversed because of the features added by each of these dependent claims that are also not taught or suggested by Krasner considered alone or together with McCrady in any proper combination.

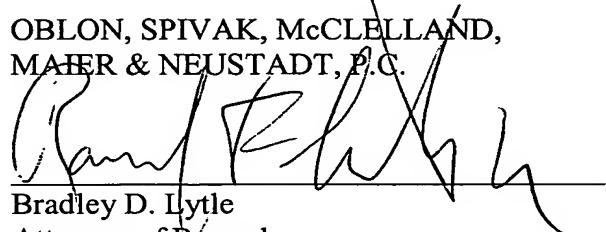
Finally, as new Claims 15 and 16 depend from independent Claims 3 and 8, respectively, it is submitted that these claims patentably define over Krasner considered alone or together with McCrady in any proper combination for the reasons set forth above as to these respective independent claims.

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As no further issues are believed to remain outstanding in the present application, it is believed that this application is clearly in condition for formal allowance and an early and favorable action to that effect is, therefore, respectfully requested.

Respectfully submitted,

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